



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,285	10/21/2003	Ulf Peter Hansson	P17691-US2	4911

27045 7590 07/03/2007
ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR 1-C-11
PLANO, TX 75024

EXAMINER

NGUYEN, LONG P

ART UNIT	PAPER NUMBER
----------	--------------

2616

MAIL DATE	DELIVERY MODE
-----------	---------------

07/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/691,285

Applicant(s)

HANSSON ET AL.

Examiner

Long P. Nguyen

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-3, and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami et al. (US 7,180,857, Hereinafter, Kawakami) in view of Dittia et al. (US 6,674,721, Hereinafter, Dittia)

As for claim 1, Kawakami shows switching a data flow of information packets between a sending and receiving entity, the method comprising: buffering the packets from a plurality of paths in a queue (**Col. 23 line 32-36**); noting portions in the queue attributable to each separate path within the plurality of paths (**Col. 23 line 25-28**); sending a halt message to a sending entity corresponding to a halted path occupying a predetermined percentage of the queue (**Col. 23 line 1-5**); determining if there is a free state corresponding to the queue, if yes, then: storing an indicator of the halted path in a free switch state including storing an indicator of the bandwidth associated with the halted path (**Figure 19**); if no, then: establishing a chronological order of the states (**Figure 18**); determining an older portion of the states (**Figure 18**); and successively updating the indicator of the bandwidth when the queue reaches a congestion condition (**Col. 22 line 44-46**), but, Kawakami do not show purging the state for a path having the smallest bandwidth in said older part of the states, and successively updating the

indicator of the bandwidth when the queue reaches a congestion condition. However, Dittia show purging the state for a path having the smallest bandwidth in said older part of the states (**Col. 19 line 45-55**). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the flow control system of Kawakami with the XON of Dittia in order to signal the sender to transmits data after the congestion has alleviate (**Col. 18 line 39-40**).

As for claim 2 and 7, Kawakami do no show reusing the purged state, but Dittia show reusing the purged state (**Col. 20 line 8-13**). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the flow control of Kawakami with the XON of Dittia in order to continually signal the sender to transmits data after the congestion has alleviate in a plurality of buffer.

As for claim 3 and 8, Kawakami shows determining the queue congestion by a threshold (**Col. 22 line 44-46**).

As for claim 6, Kawakami shows a queue device for buffering the packets from the paths (**Col. 23 line 25-36**); a device for halting a sending entity on congestion of the queue wherein the device for halting has means for halting the sending entity for the path occupying the individually greatest portion of the queue (**Col. 22 line 64-67, Col. 23 line 1-5**); switch states for storing the halt condition wherein the switch states have a means for storing a bandwidth indicator for the halted path (**Figure 19**); a means for noting the individual portions that different of the paths occupy in the queue (**Figure 119**); a means for successively updating the respective bandwidth indicator of halted

Art Unit: 2616

paths as the queue is repeatedly congested (**Col. 22 line 44-46**); a means for establishing a chronological order of the states (**Figure 18**); a means for determining an older part of the states (**Figure 18**); but Kawakami do not show a means for purging the state for a path having the smallest bandwidth in said older part of the states. However Kawakami shows a means for purging the state for a path having the smallest bandwidth in said older part of the states (**Col. 9 line 45-55**). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the flow control system of Kawakami with the XON of Dittia in order to signal the sender to transmits data after the congestion has alleviate (Col. 18 line 39-40)

3. Claim 4 and 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami in view of Dittia as applied to claim 1 above, and further in view of Barker et al. (US 2006/0285551, hereinafter, Barker).

As for claim 4 and 9, Kawakami shows wherein the noting of the individual portions that different of the paths occupies is performed as a count (**Col. 23 line 25-36**), but Kawakami in view of Dittia do not show a byte counter. However, Barker shows a byte counter (**Col. 7 line 62-67**). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the monitoring of buffer of Kawakami in view of Dittia with the byte counter of barker in order to monitor the transmission traffic (Col. 7 line 61-62).

4. Claim 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami in view of Dittia as applied to claim 1 above, and further in view of Brightman et al. (US 2006/0292292, Hereinafter, Brightman).

As for claim 5 and 10, Kawakami in view of Dittia shows the free state, but do not show the state includes a counter field and that the path bandwidth is noted in said counter field as the number of times the respective path has been found to occupy the individually greatest portion of the queue [0311], [0320] **Note: Brightman shows the packets are 64-bits with a field indicating the sequence number of the packet in order. Knowing the length of the packet and its sequence number the monitoring apparatus can determine the bandwidth of the connection and the number of times the data of the path occupy the queue.** It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the flow control system of Kawakami in view of Dittia with the sequence number of Brightman in order to provide traffic monitor based on in order packet transmission.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Long P. Nguyen whose telephone number is (571)-272-9740. The examiner can normally be reached on Monday - Thursday 7:30 - 5:00 EST Alternate F 7:30-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Long Nguyen



DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600